Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of claims

Claim 1: (previously presented) A transmitter for receiving information from a service provider about a service and for conveying the information to a handheld device, said transmitter comprising:

    means for defining a context in said transmitter;

    means for receiving the information at said transmitter;

    means for formatting the information in said transmitter into a machine-readable form to produce a transmitted signal compatible with the handheld device and relevant to said context; and

    means for conveying said transmitted signal from said transmitter to the handheld device located within said context, said information displayed to a user of the handheld device if the user has previously expressed an interest in the service;

    wherein said conveying means transmits a diffuse infrared signal;

    wherein said machine-readable form is an XML element; and

    wherein said XML element is encapsulated in an integrity element.

Claim 2: (canceled)

Claim 3: (previously presented) The transmitter of claim 1 wherein said diffuse infrared signal has a wavelength substantially in the range of 850 nanometers to 1250 nanometers.

Claim 4: (previously presented) The transmitter of claim 1 wherein said diffuse infrared signal is generated by modulating an electric light.

Claim 5: (canceled)

Claim 6: (canceled)

Claim 7: (original) The transmitter of claim 1 further comprising means for receiving a reply from said handheld device.

Claim 8: (original) The transmitter of claim 1 wherein said handheld device includes a plug-in, said plug-in associated with said interest.

Claim 9: (currently amended) A handheld device operating in a context associated with a transmitter conveying a [[transmitted]] formatted signal, said handheld device comprising:

means for receiving the formatted [[said transmitted]] signal, said transmitted signal being formatted by the transmitter, said received signal including information from a service provider offering a service, said received signal further being present [[if]] when said handheld device is located within [[said]] the context, [[said]] the context being communicatively associated with [[said]] the transmitter; and

means for extracting said information [[if]] when a user of said handheld device has expressed an interest in such a service;

wherein said information includes a first XML element; and

wherein said information is encapsulated in an integrity element.

Claim 10: (currently amended) The handheld device of claim 9 wherein said means for extracting includes a plug-in, said plug-in [[associated]] executes when said interest is [[with said]] expressed [[interest]].

Claim 11: (currently amended) The handheld device of claim 9 wherein said means for receiving being capable of receiving transmitted signal is a diffuse infrared signal.

Claim 12: (currently amended) The handheld device of claim 9 further comprising means for displaying at least a portion of said information to [[said]] the user.

Claim 13: (currently amended) The handheld device of claim 12 further comprising means for accepting an input from [[said]] the user, said input provided in response to said at least a portion of said information.

Claim 14: (currently amended) The handheld device of claim [[9]] 13 ~~wherein said transmitter further includes means for receiving a reply from said handheld device, said reply generated~~ further comprising a means for sending a reply, in response to said input, to the transmitter.

Claim 15: (canceled)

Claim 16: (canceled)

Claim 17: (previously presented) The handheld device of claim 9 wherein said integrity element includes a second XML element.

Claim 18: (previously presented) The handheld device of claim 17 wherein said integrity element further includes:

a checksum value, said checksum value representative of said information;

a size value, said size value indicating the size of said information;

a seed value, said seed value being used in computing said checksum value; and

an operator, said operator being used in conjunction with said size value and said seed value to compute said checksum value.

Claim 19: (canceled)

Claim 20: (canceled)

Claim 21: (previously presented) The method of claim 25 further comprising the step of utilizing a behavior of the user to establish the preference.

Claim 22: (previously presented) The method of claim 25 further comprising the step of using a plug-in for establishing the preference.

Claim 23: (canceled)

Claim 24: (previously presented) The method of claim 28 further comprising the step of generating the diffuse infrared signal by modulating an electric light.

Claim 25: (previously presented) A method for establishing a context of a user located within a coverage area associated with a transmitter, said method comprising the steps of:

receiving information at the transmitter, the transmitter being communicatively associated with a handheld device, the information being of interest to the user of the handheld device if located within the coverage area;

formatting the information into a first XML element;

encapsulating the first XML element in a second XML element, the second XML element being an integrity element;

converting the first XML element and the integrity element into a signal; and

emitting the signal to the handheld device located within the coverage area, the information displayed to the user of the handheld device if the user has established a preference at a time prior to receiving the signal;

wherein the context for the user having the handheld device and located within the coverage area has been determined.

Claim 26: (previously presented) The method of claim 25 further comprising the steps of:

emitting a time element in conjunction with the first XML element and the integrity element; and

establishing a temporal context for the user using the time element.

Claim 27: (previously presented) The method of claim 26 further comprising the step of forming the time element from a time XML element.

Claim 28: (previously presented) The method of claim 25 further comprising the step of forming the signal from a diffuse infrared signal.

Claim 29: (previously presented) A method for receiving contextual information contained in an emitted signal formatted by and received from a transmitter having a coverage area associated therewith, said method comprising the steps of:

establishing a preference for the contextual information;

receiving the emitted signal containing the contextual information formatted by the transmitter, the contextual information included in a broadcast XML element;

processing the broadcast XML element to extract the contextual information; and

displaying at least a portion of the contextual information to the user located within the coverage area if the preference was established prior to receiving the broadcast XML element;

wherein the contextual information is received from the transmitter.

Claim 30: (previously presented) The method of claim 29 wherein the emitted signal includes an integrity XML element encapsulating the broadcast XML element.

Claim 31: (previously presented) The method of claim 29 further comprising the step of forming the emitted signal from a diffuse infrared signal.

Claim 32: (previously presented) The method of claim 31 further comprising the step of generating the diffuse infrared signal by modulating an electric light.

Claim 33: (previously presented) The method of claim 30 further comprising the step of establishing the preference by using a plug-in.

Claim 34: (currently amended) A method of utilizing executable code in a transmitter to establish a context of a user having a handheld device and operating within a coverage area associated with the transmitter, the method comprising the steps of:

receiving, through the executable code in the transmitter, information about a service at the transmitter, the information being of interest to the user of the handheld device if the user is located within the coverage area;

executing the executable code to format ~~formatting, in the transmitter,~~ the information into an XML element for conversion into a signal; and

emitting the signal, from the transmitter, to the handheld device located within the coverage area, the information displayed to the user of the handheld device.

Claim 35: (previously presented) The method of claim 34 further comprising the step of displaying the information to the user only if the user has established a preference prior to receiving the signal.

Claim 36: (previously presented) The method of claim 34 further comprising the steps of:

generating a time element; and

emitting the time element in conjunction with the XML element, the time element for use in establishing a temporal context for the user.

Claim 37: (previously presented) A method of utilizing executable code in a handheld device receiving a signal formatted by a transmitter, said method comprising the steps of:

establishing a preference for information contained in the signal, the information being formatted by the transmitter as an XML element;

receiving the signal at a communication interface communicatively associated with the handheld device;

processing the signal to extract the information contained therein; and

displaying at least a portion of the information to the user located within the coverage area.

Claim 38: (previously presented) The method of claim 37 further comprising the step of establishing the preference by using a plug-in.

Claim 39: (previously presented) The method of claim 37 further comprising the step of using the coverage area to define a context for the user receiving the emitted signal.

Claim 40: (previously presented) The method of claim 37 further comprising the step of encapsulating the XML element in an integrity XML element.

Claim 41: (previously presented) A system for providing contextually-relevant information to a user comprising:

means for receiving by the transmitter electronic raw data about a service;

means for determining by the transmitter said contextually-relevant information about said service from said electronic raw data;

means for formatting by the transmitter said contextually-relevant information into a standard machine-readable format;

means for transmitting by the transmitter said formatted contextually-relevant information;

means for receiving by a client said formatted contextually-relevant information;

means for providing to the user by the client said formatted contextually-relevant information.

Claim 42: (previously presented) The system of claim 41 further comprising:

means for determining if said formatted contextually-relevant information is preferred by the user.

Claim 43: (previously presented) The system of claim 41 further comprising:

means for packaging by the transmitter said formatted contextually-relevant information into at least one broadcast signal;

means for transmitting by the transmitter said at least one broadcast signal; and

means for receiving at the client said at least one broadcast signal.

Claim 44: (new) A system for providing contextually-relevant information to a user comprising:

a transmitter including:

a network interface capable of receiving electronic raw data about a service;

a data formatter capable of determining the contextually-relevant information about the service from the electronic raw data, said data formatter capable of formatting the contextually-relevant information into a standard machine-readable format; and

an optical transmitter capable of transmitting the formatted contextually-relevant information; and

a client including:

an input/output module capable of receiving the formatted contextually-relevant information; and

a processing module for providing to the user by said client the formatted contextually-relevant information.

Claim 45: (new)   The system of claim 44 wherein said processing module is capable of determining when the formatted contextually-relevant information is preferred by the user.

Claim 46: (new)   The system of claim 44 wherein said transmitter further comprises:

an IR port driver capable of packaging the formatted contextually-relevant information into at least one broadcast signal, wherein said optical transmitter is further capable of transmitting said at least one broadcast signal.

Claim 47: (new)   The system of claim 46 wherein said client further comprises:

a communication module capable of receiving said at least one broadcast signal.